

FORM PCT 1390  
REV. 5/93

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NO.

KOHLRUSS ET AL-6 PCT

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

09/936826

INTERNATIONAL APPLICATION NO.  
PCT/EP00/01885 ✓INTERNATIONAL FILING DATE  
3 MARCH 2000 ✓PRIORITY DATE CLAIMED  
19 MARCH 1999 ✓TITLE OF INVENTION  
PILE FABRIC ✓

APPLICANT(S) FOR DO/EO/US

GREGOR KOHLRUSS ET AL ✓

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

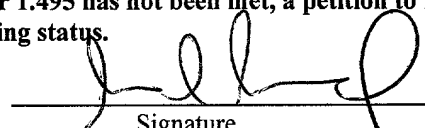

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau)
  - b. ☐ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
  - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

PCT/ISA/210 - Int'l. Search Report (English)

Applicant Claims Priority under 35 U.S.C. §119 of GERMAN Application No. 199 12 548.1, filed: 19 MARCH 1999.  
 Applicant Claims Priority under 35 U.S.C. §120 of: PCT No. PCT/EP00/01885, filed: 3 MARCH 2000.

APPLICATION NO. (if known, see 37 CFR 1.53) <b>09/936826</b>				INTERNATIONAL APPLICATION NO PCT/EP00/01885		ATTORNEY'S DOCKET NO KOHLRUSS ET AL-6 PCT	
<input checked="" type="checkbox"/> The following fees are submitted: <b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b> Search Report has been prepared by the EPO or JPO.....\$860.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) .....\$690.00 Neither international preliminary examination fee paid (37 CFR 1.82) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO.....\$1,000.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).....\$100 <b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>				CALCULATIONS		PTO USE ONLY	
				\$ 860.00			
Surcharge of \$130.00 for furnishing the oath or declaration later than ____ 20 ____ 30 months from the earliest claimed priority date (37 CFR 1.492(e)).							
Claims	Number Filed	Number Extra	Rate				
Total Claims	14 - 20 =	- 0 -	X \$18.00	\$			
Independent Claims	1 - 3 =	- 0 -	X \$80.00	\$			
Multiple dependent claim(s) (if applicable)			+ \$270.00	\$			
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	860.00		
Reduction by 1/2 for Small Entity status, if applicable.				\$	430.00		
<b>SUBTOTAL =</b>				\$	430.00		
Processing fee of \$130.00 for furnishing the English translation later than ____ 20 ____ 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$			
<b>TOTAL NATIONAL FEE =</b>				\$	430.00		
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				See cover sheet attached to assign \$ to be charged to Deposit Acct			
<b>TOTAL FEES ENCLOSED =</b>				\$	430.00		
				Amount to be: refunded		\$	
				charged		\$	
<input checked="" type="checkbox"/> Applicant claims Small Entity status. a. <input checked="" type="checkbox"/> A check in the amount of \$ 430.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 03-2468 in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.							
<b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or          (b)) must be filed and granted to restore the application to pending status.</b> <b>SEND ALL CORRESPONDENCE TO:</b> COLLARD & ROE, P.C. 1077 Northern Boulevard Roslyn, New York 11576-1696 (516) 365-9802							
Express Mail No. <u>EL 871 447 561 US</u> Date of Deposit <u>September 18, 2001</u>				<div style="text-align: center;">             Signature  <u>Allison Collard 22532</u>  <del>Edward R. Freedman</del>  <del>Reg. No. 26,048</del> </div>			
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231							
				 Lisa L. Vulpis			

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: GREGOR KOHLRUSS ET AL  
PCT NO.: PCT/EP00/01885 PCT FILED: 3 MARCH 2000  
PRIORITY: 99 12 548.1 PRIORITY FILED: 19 MARCH 1999  
TITLE: PILE FABRIC

PRELIMINARY AMENDMENT

**ATTN.: BOX PCT APPLICATION**

Ass't. Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Preliminary to the initial Office Action, please amend the  
above-identified application as follows:

**IN THE SPECIFICATION:**

On Page 1, line 1, please insert the following paragraphs:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §119 of German  
Application No. 199 12 548.1, filed on March 19, 1999. Applicants  
also claim priority under 35 U.S.C. §120 of PCT/EP00/01885, filed  
on March 3, 2000. The international application under PCT article  
21(2) was not published in English.--

**IN THE ABSTRACT:**

Please add the attached Abstract of the Disclosure on a separate page.

**IN THE CLAIMS:**

Please cancel claims 1-14 and replace with new claims 15-28 as attached hereto.

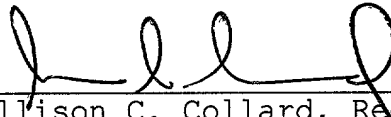
**REMARKS**

By this Preliminary Amendment, the application has been amended to conform with U.S. practice, the cross-reference to the related application has been inserted on page 1. Also, claims 1-14 have been replaced by new claims 15-28. In addition, an Abstract of the Disclosure has been added on its own separate. No new matter has been introduced.

Entry of this amendment is respectfully requested.

Respectfully submitted,

GREGOR KOHLRUSS ET AL



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Edward R. Freedman, Reg. No. 26,048  
Attorneys for Applicants

**Express Mail No. September 18, 2001**

**Date of Deposit EL 871 447 561 US**

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231

  
Lisa L. Vulpis

## Claims

15. A pile fabric comprising a textile support structure and a trimming comprised of pile threads anchored in the textile support structure, characterized in that the pile threads (3) all or partly consist of a multi-filament yarn containing fine filaments (4), on the one hand, and coarse filaments (5) on the other, with the titer of the coarse filaments being more than 25 times greater than the titer of the fine filaments (4).

16. The pile fabric according to claim 15, characterized in that the fine filaments (4) have a titer of from 0.2 to 5 dtex.

17. The pile fabric according to claim 16, characterized in that the fine filaments (4) are made of polyester and the coarse filaments (5) of polyamide.

18. The pile fabric according to claim 16, characterized in that the filaments (4, 5) are equally long.

19. The pile fabric according to claim 16, characterized by the use as a coating fabric for paint roller applicators.

20. The pile fabric according to claim 15, characterized in that the fine filaments (4) have a titer of from 0.2 to 5 dtex

and the coarse filaments (5) a titer of more than 18 dtex.

21. The pile fabric according to claim 19, characterized in that the fine filaments (4) are crimped to a greater extent than the coarse filaments (5).

22. The pile fabric according to claim 20, characterized by the use as a cleaning cloth.

23. The pile fabric according to claim 15, characterized in that the fine filaments (4) have a titer of from 0.05 to 6.7 dtex and the coarse filaments (5) a titer of from 1.25 to 170 dtex.

24. The pile fabric according to claim 23, characterized in that the fine filaments (4) are made of polypropylene (PP) and/or viscose and/or polyacrylonitrile (PAN), and the coarse filaments (5) of polyester (PES) and/or polyvinyl chloride (PVC) and/or polycarbonate (PC).

25. The pile fabric according to claim 23, characterized in that the coarse filaments (5) and the fine filaments (4) are uniformly crimped to the same extent.

26. The pile fabric according to claim 23, characterized in that the coarse filaments (5) are crimped to a lesser extent than

the fine filaments (4).

27. The pile fabric according to claim 23, characterized in that the coarse filaments (5) are crimped to a greater extent than the fine filaments (4).

28. The pile fabric according to claim 24, characterized by the use as a massaging mat or a massaging glove.

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## ABSTRACT

The invention relates to a pile fabric comprising a textile support structure (1) and a trimming consisting of pile threads (3) which are anchored in the support structure (1). The aim of the invention is to produce a pile fabric of the type with good properties which are evenly distributed over the entire surface thereof i.e. to produce a fabric which retains a good abrasive and absorbent effect and retains its volume over the entire surface. An additional aim is to improve the mechanical anchoring of the rigid pile threads (3) in the support structure (1). To this end, the inventive pile threads (3) consist wholly or partially of a multi-filament yarn which contains both fine filaments (4) and coarse filaments (5). The coarse filament count is more than 25 times greater than the fine filament (4) count.



PILE FABRIC

The invention relates to a pile fabric comprising a textile support structure with a trimming consisting of pile threads anchored in the support structure.

According to the prior art (see EP 0 609 678 A1), it is known to use in connection with such a pile fabric employed as a textile material for cleaning purposes pile threads with a varying titer, whereby selected surface areas have pile threads with a particularly high titer, and other surface areas pile threads with a low titer. The pile threads with a high titer are in this connection expected to have a highly abrasive cleaning effect, and the pile threads with a low titer good absorptive power for absorbing the cleaning liquid.

Problems arise in connection with the known pile fabric to the extent that viewed across the surface area, the cleaning effect is not the same everywhere, and that especially the surface areas with pile threads with a low titer lose their volume quickly because the pile threads with the low titer bend over and come to lie flat. Further problems result from the fact that the stiff pile threads with the high titer can only poorly be anchored in the support structure and have to be glued to or fused with the

latter, so that they will not become detached from the textile support structure prematurely.

Therefore, the problem of the invention is to provide a pile fabric of the type specified above that has good properties uniformly across the entire surface area, i.e. good abrasive and absorbent effects and retains its full volume everywhere. Furthermore, the goal is to improve the mechanical anchoring of the stiff pile threads in the textile support structure.

For solving said problem, the invention proposes based on a pile fabric of the type specified above that the pile threads all or partially consist of a multi-filament yarn that contains pile filaments on the one hand, and coarse filaments on the other, with the titer of the coarse filaments amounting to 25 times the titer of the fine filaments.

The pile fabric according to the invention employs for the pile threads for the first time a multi-filament yarn comprised of coarse and fine filaments with titers that are very widely apart, whereby the coarse filaments provide the pile thread with high stiffness, high resetting capability and a high scratching effect, and the fine filaments provide such a pile thread with high absorptive power. The mixture between the coarse and the fine filaments is particularly

intimate in this connection, so that the pile fabric exhibits uniform properties over its entire surface area. Owing to the fact that the coarse and the fine filaments are twisted with each other in the pile threads, particularly durable anchoring of the pile threads in the textile support structure is obtained in spite of the high stiffness of the individual pile threads, whereby the textile support structure may be present in the form of fabrics or knitted textile materials. Especially the fine filaments, which are closely joined with the coarse filaments, effect particularly solid anchoring and clamping in the textile support structure.

According to a first embodiment of the pile fabric as defined by the invention, provision is made that the fine filaments have a titer of from 0.2 to 5 dtex. Filaments with such a degree of fineness are particularly absorbent and capable of storing relatively much liquid. With such fine filaments it is possible to achieve a number of up to 100,000 individual filaments per square centimeter with a capillary effect that is correspondingly high. Each pile thread retains nonetheless its stiffness and remains elastically resettable because of the filaments with a high titer contained therein.

The fine filaments are usefully made of polyester and the coarse elements of polyamide. Pile threads comprised of such

a material pairing are stiff, on the one hand, and absorbent on the other, and, furthermore, are capable of readily giving off again any absorbed liquid.

The filaments in the pile threads all have usefully the same length. The goal achieved in this way is that the pile fabric is supportive and at the same time absorptive on its surface, i.e. in the area of the distal ends of the individual pile threads. On account of its properties, such a pile fabric is particularly suited as a cover pile fabric for a paint roller applicator. Because of the high stiffness of the coarse filaments, such a cover pile fabric is not pressed flatly onto the surface to be painted when the paint roller applicator is used. On the other hand, due to the capillary effect, the fine filaments transport the paint to be applied into the region of the tips of the individual pile threads, which leads to a particular uniform application of the paint.

According to another exemplified embodiment of the pile fabric as defined by the invention, provision is made that the fine filaments have a titer of from 0.2 to 5 dtex and the coarse filaments a titer of more than 18 dtex. This supplies a pile fabric that has a particularly strong abrasive effect, which means such a pile fabric is especially suited for use as a textile material for cleaning purposes.

For increasing the abrasive effect further, the fine filaments may be crimped to a higher degree than the coarse filaments, if need be. This causes the coarse filaments to extend beyond the fine filaments, so that the effect of a brush is obtained on the surface of the pile fabric.

According to a third embodiment, provision is made that the fine filaments have a titer of from 0.05 to 6.7 dtex and the coarse filaments a titer of from 1.25 to 170 dtex. The fine filaments are in this connection made of polypropylene (PP) and/or viscose and/or polyacrylo-nitrile, and the coarse filaments consist of polyester (PES) and/or polyvinyl chloride (PVC) and/or polycarbonate (PC). Such a pile fabric can be adapted to all kinds of different application purposes.

Such a pile fabric is particularly suited as a massaging mat or a massaging glove. In this connection, the coarse and the fine filaments either may have different widths or they may be crimped to the same extent depending on the desired massaging effect. If they are crimped to the same extent, a pile fabric is obtained that is uniformly soft on the surface and has a highly elastic volume.

On the other hand, if the coarse filaments are crimped to a lesser extent than the fine filaments, a relatively

aggressive surface is obtained that causes irritation of the skin, for example when it is used for massaging purposes. But if the coarse filaments, on the other hand, are crimped to a greater extent than the fine filaments, a particularly soft and carefully working surface is obtained which, however, is nonetheless highly supportive and elastic.

Exemplified embodiments of the invention are explained in greater detail in the following with the help of the drawing, in which:

FIG. 1 shows a schematic sectional view of a first embodiment of a pile fabric as defined by the invention produced by the double-pile process.

FIG. 2 shows a schematic sectional view of a second embodiment of a pile fabric as defined by the invention produced by the double-pile process.

FIG. 3 shows a schematic section view of a third embodiment of a pile fabric as defined by the invention produced by the double-pile process.

In FIG. 1, the textile support structure of the pile fabric, in the present case a backing fabric, is denoted in its entirety by the reference numeral 1. Said pile fabric is

comprised of warp threads not shown, and the wefts 2 extending perpendicular to the former.

The pole threads 3 are anchored in said textile support structure 1 and guided around adjacent wefts and cut off at both ends in such a way that their distal end sections extend about perpendicular to the main plane of expanse of the textile support structure 1.

The pile threads 3 of the pile fabric all, or at least for the major part consist of a multi-filament yarn that contains the fine filaments 4, on the one hand, and the coarse filaments 5 on the other, whereby the titer of the coarse filaments amounts to more than 25 times the titer of the fine filaments 4.

If the pile fabric is employed as a cover for a paint roller applicator, the fine filaments 4 have a titer of, for example from 0.2 to 5 dtex. The titer of the associated coarse filaments 5 is at least 25 times greater in each case. Therefore, if the fine filaments have a titer of 0.2 dtex, the coarse filaments have a titer of more than 5 dtex. On the other hand, if the fine filaments have a titer of 5 dtex, the coarse filaments have a titer of more than 25 dtex.

In the exemplified embodiment according to FIG. 1, the coarse filaments 5 and the fine filaments 4 are equally long. The fine filaments 4 are made of polyester in this connection, and the coarse filaments 5 are produced from polyamide. Such a material pairing is particularly suited for paint roller applicators. The coarse filaments 5 support the paint roller applicator in this connection in the plane of contact over the circumference of the roller against the surface to be coated with paint. The fine filaments, on the other hand, owing to their extremely good capillary effect, transport the paint up into the range of said surface. Such a paint roller applicator achieves a particularly uniform application of the paint and exhibits relatively minor tendency to splashing.

If the pile fabric is to be employed as a textile material for cleaning purposes, the fine filaments have a titer of from 0.2 to 5 dtex and the coarse filaments a titer in excess of 18 dtex. If, as in the exemplified embodiment according to FIG. 2, the fine filaments 4 are crimped to a greater extent than the coarse filaments 5, a particularly rough and abrasively active surface of the pile fabric is obtained.

On the other hand, if, as in the exemplified embodiment according to FIG. 3, the coarse filaments 5 are crimped to a greater extent than the fine filaments 4, a textile material



with a particularly soft surface is obtained that nonetheless has a particularly elastic volume.

An adaptation to all kinds of different cases of application is possible if the fine filaments have a titer of from 0.05 to 6.7 dtex and the coarse filaments a titer of from 1.25 to 170 dtex. Especially the materials polypropylene (PP), viscose or polyacrylonitrile (PAN) are suitable for the fine filaments. On the other hand, the materials polyester (PES) or polyvinyl chloride (PVC) or polycarbonate (PC) are advantageously employed for the coarse filaments. The pile fabric can be adapted to all sorts of different applications by selecting and pairing the materials as required, for example as a fabric for particularly soft or particularly aggressive massaging gloves, or as industrial textiles, for example for cleaning purposes, or as filter coatings or the like.

## Claims

1. A pile fabric comprising a textile support structure and a trimming comprised of pile threads anchored in the textile support structure, characterized in that the pile threads (3) all or partly consist of a multi-filament yarn containing fine filaments (4), on the one hand, and coarse filaments (5) on the other, with the titer of the coarse filaments being more than 25 times greater than the titer of the fine filaments (4).

2. The pile fabric according to claim 1, characterized in that the fine filaments (4) have a titer of from 0.2 to 5 dtex..

3. The pile fabric according to claim 2, characterized in that the fine filaments (4) are made of polyester and the coarse filaments (5) of polyamide.

4. The pile fabric according to claim 2 or 3, characterized in that the filaments (4, 5) are equally long.

5. The pile fabric according to any one of claims 2 to 4, characterized by the use as a coating fabric for paint roller applicators.

6. The pile fabric according to claim 1, characterized in that the fine filaments (4) have a titer of from 0.2 to 5 dtex and the coarse filaments (5) a titer of more than 18 dtex.

7. The pile fabric according to claim 5, characterized in that the fine filaments (4) are crimped to a greater extent than the coarse filaments (5).

8. The pile fabric according to claim 6 or 7, characterized by the use as a cleaning cloth.

9. The pile fabric according to claim 1, characterized in that the fine filaments (4) have a titer of from 0.05 to 6.7 dtex and the coarse filaments (5) a titer of from 1.25 to 170 dtex.

10. The pile fabric according to claim 9, characterized in that the fine filaments (4) are made of polypropylene (PP) and/or viscose and/or polyacrylonitrile (PAN), and the coarse filaments (5) of polyester (PES) and/or polyvinyl chloride (PVC) and/or polycarbonate (PC).

11. The pile fabric according to claim 9 or 10, characterized in that the coarse filaments (5) and the fine filaments (4) are uniformly crimped to the same extent.

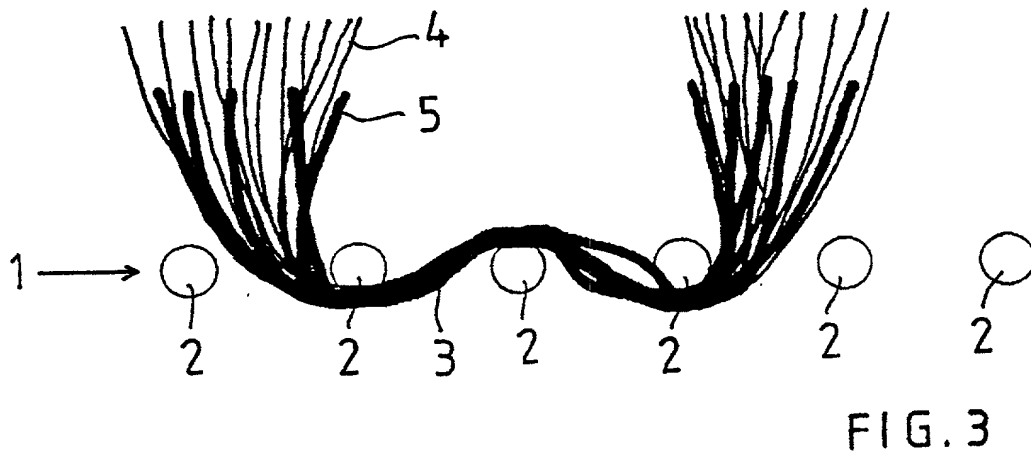
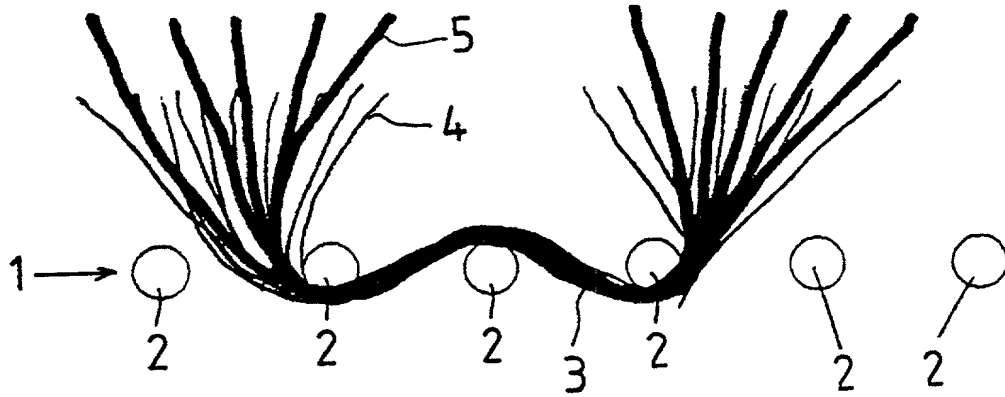
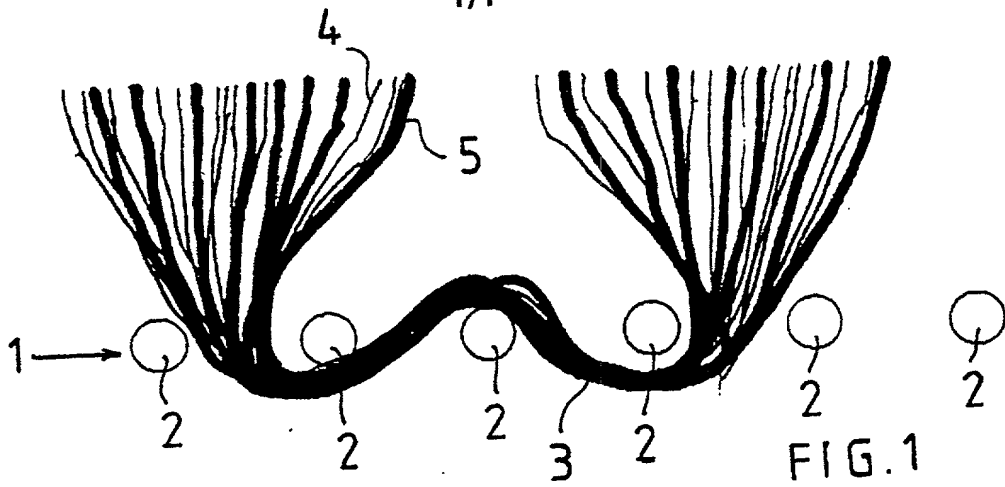
12. The pile fabric according to claim 9 or 10, characterized in that the coarse filaments (5) are crimped to a lesser extent than the fine filaments (4).

13. The pile fabric according to claim 9 or 10, characterized in that the coarse filaments (5) are crimped to a greater extent than the fine filaments (4).

14. The pile fabric according to any one of claims 10, 11 and 12, characterized by the use as a massaging mat or a massaging glove.

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**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY**  
 (Includes Reference to PCT International Applications)

 ATTORNEY DOCKET NUMBER  
 Kohkusa et al-6 PCT

As a below named inventor, I hereby declare that

My residence, post office address and citizenship are as stated below near to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**PILE FABRIC**

the specification of which (check only one item below):

- ☐ is attached hereto.
- ☐ was filed as United States application  
 Serial No. \_\_\_\_\_  
 on \_\_\_\_\_  
 and was amended  
 on \_\_\_\_\_ (if applicable).
- ☒ was filed as PCT international application  
 Number PCT/EP 00/01885  
 on 1 March 2000  
 and was amended under PCT Article 19  
 on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

COUNTRY (PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
GERMANY	199 12 548.1	19 MARCH 1999	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

**INTERNATIONAL APPLICATION AND POWER OF ATTORNEY**  
(Includes Reference to PCT International Applications)

ATTORNEYS DOCKET NUMBER

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

**PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:**

U.S. APPLICATIONS			STATUS (Check One)		
U.S. APPLICATION NUMBER	U.S. FILING DATE		PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO.	PCT FILING DATE	U.S. SERIAL NUMBER ASSIGNED (if any)			

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transfer all business in the Patent and Trademark Office connected therewith. (List name and registration number):

KURT KELMAN, Registration No. 18,628

ALLISON C. COLLARD, Registration No. 22,532;

EDWARD R. FREEDMAN, Registration No. 26,048

WILLIAM C. COLLARD, Registration No. 38,411

CHRISTOPHER B. GARVEY, Registration No. 31,015

RENE GLANZ, Registration No. 46,728

ELIZABETH COLLARD RICHTER, Registration No. 35,103

FREDERICK J. BORCHAK, Registration No. 29,298

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1077 Northern Boulevard  
Roslyn, New York 11576

Customer No. 25839

Direct Telephone Calls to:  
(name and telephone number)  
(516) 365-9802

2	FULL NAME OF INVENTOR	FAMILY NAME	FIRST GIVEN NAME	SECOND GIVEN NAME
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 1	SIGNATURE OF INVENTOR 2	
<i>[Signature]</i>	<i>[Signature]</i>	
DATE	DATE	

TO: 2001-12-20

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (Includes Reference to PCT International Applications)				ATTORNEYS DOCKET NUMBER																			
<p>I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.</p> <p>(Application Number) _____ (Filing Date) _____</p> <p>I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:</p>																							
PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:																							
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<p><b>POWER OF ATTORNEY:</b> As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and conduct all business in the Patent and Trademark Office connected therewith. (List name and registration number):</p> <p>KURT KELMAN, Registration No. 18,628      ALLISON C. COLLARD, Registration No. 22,532;  EDWARD R. FREEDMAN, Registration No. 26,048      WILLIAM C. COLLARD, Registration No. 38,411  CHRISTOPHER B. GARVEY, Registration No. 31,015      REINE GLANZ, Registration No. 46,728  ELIZABETH COLLARD RICHTER, Registration No. 35,103      FREDERICK J. DORCHAK, Registration No. 20,398</p>																							
<p>Send Correspondence to: <b>COLLARD &amp; ROE, P.C.</b>  1077 Northern Boulevard  Roslyn, New York 11576      Customer No. 24889</p> <p style="text-align: right;">Direct Telephone Calls to: (name and telephone number) (516) 365-9802</p>																							
2	FULL NAME OF INVENTOR	FAMILY NAME <b>GRIEHE</b>	FIRST GIVEN NAME <b>OLIVER</b>	SECOND GIVEN NAME																			
0	RESIDENCE & CITIZENSHIP	CITY <b>RHEDE</b> <i>DEX</i>	STATE OR FOREIGN COUNTRY <b>GERMANY</b>	COUNTRY OF CITIZENSHIP <b>GERMANY</b>																			
3	POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>HEIDWEG 12</b>	CITY <b>D-46414 RHEDE</b>	STATE & ZIP CODE/COUNTRY <b>GERMANY</b>																			
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0	RESIDENCE & CITIZENSHIP	CITY <b>NEUDROSSENFELD</b> <i>DEX</i>	STATE OR FOREIGN COUNTRY <b>GERMANY</b>	COUNTRY OF CITIZENSHIP <b>GERMANY</b>																			
4	POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>NEUBREUTH STR. 33B</b>	CITY <b>D-95512 NEUDROSSENFELD</b>	STATE & ZIP CODE/COUNTRY <b>GERMANY</b>																			
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